

## **Determination of Public Land (Rangeland) Health for 62015 S .S. WILLIAMS**

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on these assessments, it is my determination that public land within S. S. Williams allotment #62015, meets the (1) Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered, and Special Status Species standard. There are no public land Riparian areas on this allotment, therefore this standard was not addressed.

/s/ Eddie Bateson  
Field Manager

9/12/2006  
Date

# Standards of Public Land Health

## Evaluation of 62015 S .S. WILLIAMS Allotment

### [ 05/09/2006 ]

The Roswell Field Office conducted a Rangeland Health Assessment at one (1) study site within allotment #62015 S . S. Williams. This assessment evaluated Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within each study site vicinity. Existing monitoring data was incorporated into and in support of this field assessment. A summary of this assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
62015-IDSU-A023	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on S.S. Williams, allotment #62015. Ten assessed soil site stability, 11 hydrologic function and 13 biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous data collected on one location were utilized to assess rangeland health of public land within this allotment. This allotment is a "C" (custodial) category due to small amounts of public land present.

Upland and Biotic standards were evaluated for this High Plains-2 Loamy ecological site on 120 acres/48.5 hectares. Location is on a plateau of the Caprock. No livestock were observed although use was evident. This site is identical to the neighboring #62016 as all features and characteristics remain the same. There exists no real fenceline contrast. Management for both is consistent with conservative stocking rates on similar plant communities. Soil is Slaughter series classified as clayey, superactive thermic, shallow Petrocalcic Paleustolls and shallow to a petrocalcic horizon. They formed in alluvium derived from the Ogallala Formation found on edges of plains in eastern Guadalupe county. Elevation is between 4,000 ft/1,212 m and 5,300 ft/1,606 m on 0 to 2 percent slopes. Raptor red-tailed hawk (*Buteo jamaicensis*), upland game bird quail (*Callipepla* spp.), ungulates pronghorn (*Antilocapra americana*) and mule deer (*Odocoileus hemionus*) were observed as well.

Majority of indicators assessed matched what is expected for the Caprock. Vegetation, mainly grasses were in a matted form with very limited interspace. Gullies were only observed on west facing slopes of this Caprock area, but not so much on site. Any erosion has been delayed by vegetation in the form of fibrous root systems. This root system from blue grama (*Bouteloua gracilis*) appears to be holding soil in place although this perennial grass has a deteriorated appearance. Cholla (*Opuntia imbricata*) and juniper (*Juniperus* spp.) both are encroaching and Moderately scattered. This is P/J country however and all attributes indicate normal range of variability from established parameters.

Wildlife - Evaluation of the integrity of biotic community considered several indicators as attribute indices for the area of interest. Biotic indicators are interrelated with several other indicators, including soil/site stability, hydrologic function, and vegetation. Several indicators are singularly biotic and address vegetative aspects of the ecological site description, such as functional/structural groups and plant mortality & decadence. This habitat looks productive at present. As per conversation with the landowner, pronghorn and quail populations have dramatically increased from 2005. This interaction has been noted and documented as part of the assessment. Obviously wildlife have utilized this area for food and cover and have been allowed open range for dispersal and maintaining healthy viable populations. No Special Status Species Habitat or Populations concerns occur on this allotment.

It is the professional opinion of the Assessment Team, public land within allotment #62015 S. S. Williams meets Upland and Biotic Standards. There are no Riparian issues present therefore this standard was not addressed. See site notes, comments and recommendations for further information regarding this assessment.

**Recommendations:** Carrying capacity for livestock is ample here taking into account terrain and climate. Cow-calf or yearlings could best utilize this site especially during winter months due to large percentages of grass in this vegetative community. Forbs are somewhat declining but should rebound along with grass species with onset of wetter conditions. At present, deferred grazing varying seasons of rest and use during successive years is necessary to maintain a healthy vegetative community. Growing season deferment should be employed for C4 vegetation to establish and dormant conservative grazing for those cool C3 varieties. In addition spring rest can allow these cool season grasses like western wheatgrass (*Agropyron smithii*) and bottlebrush squirreltail (*Sitanion hystrix*) to vegetate and reproduce. Emphasis should be put on conservative use by livestock to curtail any increase of cholla.

Brush control by mechanical means to thin out those stands of juniper and cholla is recommended if these species begin to inhibit forage production. No immediate threat exists but potential for further encroachment may warrant closer monitoring on more regular intervals. Opening up canopy and ground cover would only serve to increase forage production creating greater water infiltration and less runoff. Allowing grass components to proliferate while developing reproductive and vegetative tillers should also reduce erosion potential.

These isolated/scattered public land parcels of 120 acre/48.5 hectares should be earmarked for disposal either by land exchange or sale if not already identified. Administratively and logistically, this would help to concentrate efforts from private and Federal sectors to manage their respective parcels more effectively. Just taking into account these land-locked tracts with no legal access should serve as strong criteria for disposal.

RFOs Upland and Biotic Standard Assessment Summary Worksheet						
SITE 62015-IDSU-A023						
Legal Land Desc	SESW 14 0070N 0260E Meridian 23		Acreage		120	
Ecosite	077BY026NM LOAMY HP-2		Photo Taken		Y	
Watershed	13060001230 ALAMOGORDO					
Observers	ARTHUN/MCFERRAZ		Observation Date		05/23/2006	
County Soil Survey	NM019 GUADALUPE		Soil Var/Taxad			
Soil Map Unit	121		Soil Taxon Name		SLAUGHTER	
Texture Class	NM019 L		Soil Phase		SLAUGHTER	
Texture Modifier	NM019 LOAM					
Observed Avg Annual Precipitation			Observed Avg Growing Season Precipitation			
NOAA Annual Precipitation	12.31		NOAA Growing Season Precipitation		9.22	
NOAA Avg Annual Precipitation	10.69		NOAA Avg Growing Season Precipitation		8.85	
Disturbances and Animal Use:	No livestock present at observation.					
<b>Part 2. Attributes and Indicators</b>						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:	location on a plateau of caprock					
S H	Water Flow Patterns					X
Comments:	Matches what is expected for a caprock.					
S H	Pedestals and/or Terracettes					X
Comments:	Vegetation is in a matted form; very little interspace.					
S H	Bare Ground					X
Comments:	estimate is less than 20%.					
S H	Gullies					X
Comments:	Only gullies would be on west facing caprock-none on site.					

S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:	Vegetation has very little area for this.					
H	Litter Movement					X
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:	S-M change in soil stability. Soil erosion is reduced by vegetation at this time.					
S H B	Soil Surface Loss or Degradation					X
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff					X
Comments:	Plant community matted.					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups					X
Comments:	Major species is represented.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount					X
Comments:	Less than 20% is the current estimate.					
B	Annual Production					X
Comments:	Exceeds 80% of potential.					
B	Invasive Plants			X		
Comments:	Cholla is encroaching on site w/juniper.					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts					X
Comments:						
B	Wildlife Habitat					X
Comments:	Habitat looks productive.					
B	Wildlife Populations					X
Comments:	Pronghorn pops. abundant, quail pops. dramatically increased from 2005. As per land owner.					

B	Special Status Species Habitat					X
Comments:	No special status species habitat concerns occur.					
B	Special Status Species Populations					X
Comments:	No special status species populations concerns occur.					
<b>Part 3. Summary</b>						
A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.						
Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	1	9
H	Hydrologic	0	0	0	1	10
B	Biotic	0	0	1	1	11
B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the <i>Does not Meet</i> column, Moderate becomes <i>May Need More Info</i> , and Slight to Moderate and None to Slight merge to form the <i>Meets</i> columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.						
Attribute	Rationale	Does Not Meet	May Need More Info	Meets		
Soil		0	0	10		
Hydrologic		0	0	11		
Biotic		0	1	12		
Site Notes: Site gps'd with trend plot set. Rebar and t-post installed; double-sampling and step-point transects run; this site exhibits blue grama matting with sideoats threeawn and muhleys present. Juniper, cholla, snakeweed and sage also present. Red-tailed hawk, deer pronghorn and quail are the wildlife observed.						



